State of Iowa - Return on Investment Program / IT Project Evaluation

SECTION 1: PROPOSAL

Tracking Number (For Project Office Use)

030

Project Name: Iowa Rehabilitation Services System Date: 11/29/00

Agency Point of Contact for Project: Matthew Coulter

Agency Point of Contact Phone Number / E-m ail: 515-281-4093
mcoulter@dvrs.state.ia.us

Executive Sponsor (Agency Director or Designee) Signature: Dwight R. Carlson, Administrator, Iowa Department of Education, Division of Vocational Rehabilitation Services

Is this project necessary for compliance with a Federal standard, initiative, or statute? (If "Yes," cite specific requirement, attach copy of requirement, and explain in Proposal Summary)	❑ Yes	☒ No
Is this project required by State statute? (If "Yes," explain in Proposal Summary)	❑ Yes	☒No
Does this project meet a health, safety or security requirement? (If "Yes," explain in Proposal Summary)	❑ Yes	☒No
Is this project necessary for compliance with an enterprise technology standard? (If "Yes," explain in Proposal Summary)	❑ Yes	☒No
Does this project contribute to meeting a strategic goal of government? (If "Yes," explain in Proposal Summary)	☒Yes	❑ No
Is this a "research and development" project? (If "Yes," explain in Proposal Summary)	❑ Yes	☒No

PROPOSAL SUMMARY:

We contend that this is a project that will contribute to meeting a strategic goal of government. It is a major system re-design and software application development project for the Iowa Division of Vocational Rehabilitation Services (DVRS) that will have substantial benefit for our clients, our staff and our agency's management as we deliver vocational rehabilitation services to people with disabilities. It is representative of this agency's commitment to continuously improve how it serves its customers and manages its resources.

1. **Pre-project**
   There are two major work systems that will be impacted by this project. One is the system used by our counselors and support staff to deliver/manage vocational rehabilitation services for our clients. The other is the system used by our administrative/financial personnel to predict, manage and monitor our financial resources. The systems in place were developed largely in the late 1970s to early 1980s, and reflect the technology of that period. Both systems are key to the agency's success, and are related to achieving the best possible outcomes for the people we serve.

2. **Post-project**
   The goal of the project is to enhance the systems we have used to deliver client services and manage our financial resources. Much of this enhancement is expected to come from a major redesign of key processes in concert with increased development and use of current Information Technology.

3. **Benefits**
   Both tangible and intangible benefits are expected. These benefits include improved productivity of our counselors and financial personnel, increased success rates for our clients, improved performance from partner organizations with whom we contract, and increased ability to predict and manage our financial resources. We also anticipate a reduction in processing time, improved access to information for planning purposes, and better relationships with whom we partner and serve because of the improved processes.
4. **Stakeholders**
   The stakeholders in this project include partner organizations, our clients, our own staff, and our federal funding agency (Rehabilitation Services Administration, U.S. Department of Education). The success of the project will impact all in a positive manner insofar as we should be better able to optimize the use of our financial and human resources – benefiting all.

Section 2 – Project Plan

1. **Agency Information**
   a. The Executive Sponsor is Division Administrator Dwight Carlson. The internal project manager is Chief Financial Officer Matt Coulter. Both individuals will oversee the planning and implementation of the project, and monitor use of agency financial resources devoted to the project.

   b. The skills necessary for successful project completion include:
      (1) Diagnosis and process design correlated with customer and stakeholder needs will ensure the intended improvements meet identified needs, and are compatible with division resources. For a project of this magnitude and with the anticipated impact on agency technology, the level of requisite skill was obtained through an outside consultant (i.e., RSM McGladrey).
      (2) Redesign of processes along with evaluation of software used currently will determine what changes are necessary. This has been initiated with the assistance of RSM McGladrey in conjunction with DVRS staff that will advise on the viability of any change in day-to-day work processes. A preliminary technical evaluation of current software has been completed, with the assistance of the above firm. The early stages of process redesign have been completed with the involvement of DVRS staff.
      (3) Evaluation of potentially viable software for adoption and/or development in DVRS is critical. Skills used for this effort began with RSM McGladrey, assisted by DVRS technology staff, and focused on an established system in the State of Texas Vocational Rehabilitation agency. Further evaluation of the Texas system/software will be required to finally determine its viability for Iowa DVRS. Such skills will be accessed through RSM McGladrey, again assisted by DVRS staff and the State Information Technology Department.
      (4) Detailed process design and detailed technical design will commence using the Texas system as a framework and guide. Skills will be accessed through RSM McGladrey to ensure compatibility of the Texas system and ensure necessary modifications before implementation in Iowa DVRS.
      (5) Actual development and testing of the system will be done with a combination of skills accessed through McGladrey and DVRS staff, with the likelihood of additional outside assistance necessary to meet programming needs (in particular, Power Builder).
      (6) Phased rollout and training skills will be needed, as the system is made available for agency usage. It is likely that some outside training assistance will be necessary.

2. **Project Information**

a. **Expectations:**
DVRS's vision states that it will …"continually strive to improve the resources and services which contribute to achievement of the goals of individuals with disabilities". Attaining quality outcomes for DVRS clients is a key goal of the agency, as is optimizing the resources to achieve such outcomes. The proposed project has been undertaken to facilitate accomplishment of these goals, and thereby improve our ability to serve our clients and bring about the desired outcomes. In plain terms, this means a higher number of successfully placed clients and a greater ability to use our financial resources in the most effective manner possible. Additional benefits include improved relationships with our partner agencies and vendors, who will be better served by streamlined processing of payments for their services.

b. Measures:
Ultimately, the key measures for success of the project are: (1) the impact on the number of successful placements per year; (2) the degree to which our financial resources are accurately predicted and managed to derive the greatest benefit; (3) the efficiency rate of our counselors; and (4) the reduction in financial processing time. If the project doesn't succeed, it is likely that our number of successful placements will not - as significantly - increase over today's levels and predicting financial expenditures in relation to available resources will continue to be problematic and overly time consuming.

c. **Environment:**
Input into the redesign of case service and financial management processes was initially obtained with the help of DVRS staff involved in this work. This resulted from a general rather than detailed analysis. However, the single most significant help for further development is anticipated from the State of Texas Rehabilitation Services System. Relationships with key staff there have already been established with the assistance of RSM McGladrey, and staff cooperation from Texas has begun. The system developed there offers great potential for DVRS, and without the front-end developmental costs.

d. **Project Management and Risk Mitigation**:
RSM McGladrey will be retained to oversee project development. However, CFO Matt Coulter, Administrative Services Bureau Chief Keith Hyland and Field Services Bureau Chief Steve Wooderson will serve on the steering committee. They, along with Administrator Dwight Carlson, will oversee expenditures and manage the scope of the project, and make decisions as necessary to ensure the success of the project.

e. **Security, Data Integrity, Data Accuracy, Information Privacy**:
Security requirements for the project have not been outlined as yet. However, it is essential for this agency to keep information on our clients confidential, and confidentiality requirements are continuously emphasized and monitored by agency management. Since we plan to use the Texas system as a model, we will benefit from the extensive security measures already built in, and modify as necessary to ensure conformance to our needs.

3. Current Technology Environment

a. Software

(1) Application:
Microsoft Office
Blues 3270 Emulator
Norton Antivirus
Microsoft Exchange
Internet Explorer 5.0
Win-Zip
DiskKeeper
Netscape Navigator 4.0
Mainframe-based CICS and batch applications

(2) Operating System:
Windows NT Workstation
Windows NT Server

Banyan Vines (soon to be eliminated)

(3) Interfaces to other systems:

IFAS
CA-Server to retrieve Mainframe files

b. Hardware

(1) Platform, operating system storage and physical requirements:
Compaq Servers – 486, Pentium, Pentium II
Wild Rose Pentium and Pentium II Workstations

(2) Connectivity and Bandwidth:
Ethernet to the Iowa Cable Network
Microsoft RAS server for dial-in staff
Modem-equipped PC's for dial-out
T-1, Fiber and Frame-relay are used

(3) Interfaces to other systems:

None

4. Proposed Environment

a. Software. The following products will be used based on current assumptions. The actual software environment is yet to be determined.

(1) Application:

Microsoft Office
Blues 3270
Microfocus COBOL
Norton Antivirus
Microsoft Exchange
Internet Explorer 5.0
Netscape Navigator 4.0
Win-Zip
Diskkeeper
Mainframe-based CICS and batch applications
Powerbuilder Applications
Informix DB
Tuxedo

(2) Operating System

Windows NT Workstation
Windows NT Server
UNIX R4
Solaris UNIX

(4) Interfaces to other systems:

CA-Server to retrieve Mainframe files
IFAS

b. Hardware. The following products will be used based on current assumptions. The actual hardware environment is yet to be determined.

(1) Platform

Compaq Servers – 486, Pentium, Pentium II
Wild Rose Pentium and Pentium II Workstations
4 NCR SMP Database servers
Sun ES5000, Sun 250 Ultra Sparc II
2 Dell 6300 Servers

(2) Connectivity and Bandwidth:

Ethernet to the Iowa Cable Network

Microsoft RAS server for dial-in staff

Modem-equipped PC's for dial out

T1, Fiber, and Frame Relay

(3) Interfaces to other systems:

None

Data Elements: To be determined.

Project Schedule: This schedule indicates the work already begun, and to be continued in State Fiscal Year '01. It then projects, in general, what will likely to be necessary in SFY 02. For '01, the following actions are planned:

1. **Organize Project**: This includes identification of DVRS staff (including team leaders for client service and financial systems) to involve in analysis of work processes, and setting of schedules for work sessions facilitated by RSM McGladrey, the consultant. Proposed completion – October, 2000.

2. **Document Processes of Texas System**: Proposed completion – November, 2000. This includes analysis of Texas documentation and orientation of DVRS team leaders to Texas processes.

3. **Design Client Service Process Fit**: This will include evaluation of Texas processes in relation to current Iowa client service processes, with selected DVRS staff participating in work sessions facilitated by consultant. Management checkpoint at this phase. Proposed completion- January, 2001.

4. **Design Financial Process Fit**: This will include evaluation of Texas processes in relation to current Iowa financial processes, with selected DVRS staff participating in work sessions facilitated by consultant. Management checkpoint at this phase. Proposed completion - January, 2001.

5. **Design of New Processes**: This will include development of new processes, determination of system requirements, and documentation of work sessions – again with selected DVRS staff involved in work sessions with consultants. Management checkpoint at this phase. Proposed completion- February, 2001.

6. **Assemble/Prioritize Modifications**: This will include development of a master list of modifications, in priority order. It will include DVRS staff working with consultant. Proposed completion - March, 2001.

7. **Determine Next Steps**: DVRS steering committee and consultant will assess progress and identify next steps. Proposed completion - April, 2001.

For SFY 02, the following actions are anticipated, but completion dates are difficult to project at this time. RSM McGladrey will be retained as the project consultant and will execute its role in conjunction with the DVRS leadership team, other designated DVRS staff, and staff from the Iowa Information Technology Department. Key actions will include:

- **Conversion of Texas RSS System:** There will need to be a transition from the architecture employed by the State of Texas RSS for its use in Iowa. The actual

extent of this conversion is yet to be determined, but it is known that it will be necessary.

- **Implementation:** There will need to be a substantial effort to allow for successful implementation, due to the broad functionality and integrated nature of this system. Steps in the implementation will include:
  1. *System Testing*. Detailed testing will be conducted to assure the system functions as planned. This testing will address both the technical and process changes to assure a smooth implementation.
  2. *System Setup*. There are a substantial number of setup issues that will need to be addressed as the system is implemented, including different aspects of the division operations related to services, clients, vendors and staff.
  3. *Training.* Comprehensive training will need to be conducted to equip DVRS staff in proper use of the new technology. This may include an initial assessment of current staff capabilities followed by identification of specific training to facilitate success in use of the new technology. It will also include detailed system training on the new technical solution.
  4. *Project Management.* Implementation of a system of this magnitude will require ongoing, active project management to ensure its success.

SECTION 3: Return On Investment (ROI) Financial Analysis

Project Budget:

Provide the estimated project cost by expense category. These estimates are based on an assumed hardware and software architecture and an assumed number of modifications. The actual software and hardware configuration is yet to be determined.

Personnel	$ 60,000
Software	$ 140,000
Hardware	$ 80,000
Training	$ 40,000
Facilities	$ 0
Professional Services	$ 260,000
Supplies	$ 0
Other (Specify)……	$ 0
Total	$ 580,000

Project Funding:

Provide the estimated project cost by funding source.

State Funds	$ 123,540	21.3	% of total cost
Federal Funds	$ 456,460	78.7	% of total cost
Local Gov. Funds	$		% of total cost
Private Funds	$		% of total cost
Other Funds (Specify)	$		% of total cost
Total Cost:	$ 580,000	100.0	% of total cost

Provide the estimated project cost by fiscal year.
State fiscal year 2002 .....$580,000

How much of the cost would be incurred by your agency
from normal operating budgets (staff, equipment, etc.)? (State Funds)……$ 123,540 100 %

How much of the cost would be paid by requested State IT project funds? $ 0 0 %

Identify, list, and quantify all additional annual maintenance expenses (State $s) related to the project.

Specific information on maintenance needs is not available at this time. This information will be a product of the Technical Design Phase to be completed in February, 2001. Our current estimate of annual software license costs is $100,000.

Identify, list, and quantify any other future additional expenses (State $s) related to the project.

Unknown at this time.

ROI Financial Worksheet

Annual Pre-Project Cost - How You Perform The Function(s) Now	
FTE Cost (salary plus benefits):	0
Support Cost (i.e. office supplies, telephone, pagers, travel, etc.):	0
Other Cost (expense items other than FTEs & support costs, i.e. indirect costs if applicable, etc.):	0
A. Total Annual Pre-Project Cost:	0
Annual Post-Project Cost – How You Propose to Perform the Function(s)	
FTE Cost:	0
Support Cost (i.e. office supplies, telephone, pagers, travel, etc.):	0
Other Cost (expense items other than FTEs & support costs, i.e. indirect costs if applicable, etc.):	0
B. Total Annual Post-Project Cost:	0
State Government Benefit (= A-B):	0
Annual Benefit Summary	
State Government Benefit:	0
Citizen Benefit (including quantifiable "hidden taxes"):	3,432,000
Opportunity Value and Risk/Loss Avoidance Benefit:	0
C. Total Annual Project Benefit:	3,432,000
D. Total Annual Project Cost:	41,891
Benefit / Cost Ratio (C / D):	**81.9**
ROI (C – D / Requested State IT Project Funds x 100):	**2,744%**

☒ Benefits Not Cost Related or Quantifiable (including non-quantifiable "hidden taxes")

There will be a dramatic reduction in use of paper. Nearly all case file data will be contained by the database. This is a benefit to DVRS, our clients, and our partner organizations.
Importance Factor 10

The database will allow DVRS to work with partner organizations such as Goodwill and Hope Haven to better understand performance issues. This will help us to fine tune the services provided to clients to generate the maximum benefit.
Importance Factor 10

The database will increase the clients' access to vendor information and enhances their ability to choose appropriate services.
Importance Factor 8

The database will greatly improve DVRS's ability to manage the financial aspects of the rehabilitation program. Historical data and educated projections will be easily available to DVRS Management. This functionality will help DVRS to avoid putting clients on a "waiting list" for services in the future.
Importance Factor 10

There will be a dramatic reduction in duplicate data entry. This not only saves time for counselors and support staff, it also reduces the chance of data entry error.
Importance Factor 8

It is possible, due to resultant counselor and financial efficiencies of the IRSS, that DVRS could possibly realize FTE savings. A 5% increase in counselor efficiency could translate into 5 or 6 rehabilitation counselor hiring's that might be avoided, due to attrition. Financial management efficiencies may be even greater. However, the impetus behind the IRSS project **is not cost savings.** The motivation for IRSS is to improve the services provided to DVRS clients and to improve DVRS's financial management tools. Any dollars eventually saved as a result of IRSS will be directed toward direct services for clients.
Importance Factor 5

Citizen Benefit (including quantifiable "hidden taxes"):

Citizen, or public benefit, is estimated to occur around three areas of improved performance. These areas are: Faster Payment Turnaround time, Increased numbers of Successful Closures (clients who achieve employment outcomes), and Improved Client Outcomes (increased hourly wages and increased number of hours working) at case closure.

Calculating the potential lost interest income due to late payment shows the benefit to **faster payment turnaround**. The current payment system generates a payment to a vendor approximately four weeks after a bill has been submitted. The IRSS should be able to generate a payment within one week, for a three-week savings. The average Prime Rate for interest during sfy 2000 was 8.917%. Savings to DVRS should be about $58,000 annually based on $11,320,000 at 8.917% for 21 days. The **intangible** benefit of greatly improved relations with clients and vendors due to much quicker payments is worth much more than the estimated interest savings. Here is the calculation:

Estimated Amount of Vendor Payments		$11,320,000
Average Prime Interest Rate	X	8.917%
Number of Days Saved	X	21
Number of Days Per Year	÷	365
Savings Generated		$58,075

The IRSS is designed to allow DVRS counselors to spend more time with clients and less time on administrative tasks. This additional time spent with clients will generate a 5% **increase in "successful" case closures**. A successful closure occurs when a client has attained employment and DVRS services are no longer needed. A 5% increase in successful closures translates into about $1,646,000 of income generated by 128 persons with disabilities. Here is the calculation:

Number of Persons Successfully Employed (Closures)		2,563
Rate of Improvement	X	5%
Increased Number of Successful Closures		128.15
Average Weekly Income Earned Per Closure	X	$247
Number of Weeks Per Year	X	52
Additional Income Earned		$1,645,959

Another benefit of increased counselor/client interaction is **improved employment outcomes**. Improved outcomes mean a higher hourly wage or increased numbers of hours worked, or both. A simple 5% improvement in the number of successful closures would be 128 as previously stated. A 5% improvement in hourly wages or hours worked in addition will add about $1,728,000 to the income generated by successful case closures. Here is the calculation:

Number of Persons Successfully Employed (2,563 + 128)		2,691
Average Weekly Income Earned Per Closure	X	$247
Rate of Improvement in Income Earnings	X	5%
Number of Weeks Per Year	X	52
Additional Income Earned		$1,728,160

Cumulatively, the **Citizen Benefits** add up to $3,432,000 (rounded to the nearest one thousand dollars).

Opportunity Value and Risk/Loss Avoidance Benefit:

Not applicable. The state appropriated funds used to pay for costs of the IRSS project also match federal grant funds at a rate of 21.3% state funds to 78.7% federal funds. However, costs of this project or as a result of this project will not generate any additional federal funds above the Iowa allocation from the Rehabilitation Services Administration.

D. Total Annual Project Cost:

The following spreadsheet illustrates the annual cost based on the useful life for each project expense category:

Expense Category	(A) Cost for FY2002	(B) Useful Life	Annual Cost (= A / B)
Personnel	$60,000	1	$60,000
Software	$140,000	4	$35,000
Hardware	$80,000	3	$26,670
Training	$40,000	4	$10,000
Professional Services	$260,000	4	$65,000

Total	**$580,000**		**$196,670**

The following spreadsheet illustrates the breakdown of the Total Annual Project Cost by funding source:

Funding Source	**(A) Total Ann. Proj Cost**	**(B) % of Cost**	**Total Cost (= A * B)**
State	$196,670	21.3	$41,891
Federal	$196,670	78.7	$154,779
Total			**$196,670**